

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF NEW YORK**

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VANOCUR REFRACTORIES, LLC,

Case No.: 23-cv-943

Plaintiff,

vs.

FOSBEL, INC.,

**JURY TRIAL DEMANDED**

Defendant.

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**COMPLAINT**

Plaintiff, VANOCUR REFRACTORIES, LLC (“Vanocur”), for its complaint against defendant, FOSBEL, INC. (“Fosbel”), alleges the following:

**NATURE OF THE ACTION**

1. The patented invention at issue relates to Vanocur’s “Big BLOCK Solution” coke-oven design, which for almost 2 decades has supplied the coke and steel industry with a revolutionary oven design and repair system that reduces costs attributed to downtime, labor, and future-maintenance repairs, all while assuring quality and safety. Utilizing its patented technology, including its Modular Cast Block (MCB) technology,<sup>1</sup> Vanocur is the worldwide leader in coke-oven refractory design, repair, and installation. In fact, Vanocur has been the sole manufacturer of modules for the coke oven industry for over 20 years.

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<sup>1</sup> Modular Cast Block (MCB) technology is a revolutionary repair solution that reduces time and total costs compared to traditional silica repairs.

2. Defendant, Fosbel Inc., is an engineering company that specializes in refractory repairs, and maintenance in the steel, coke, and glass markets. Historically, Fosbel never produced refractory blocks in the United States, but instead it chose to utilize China for its production of refractory blocks.

3. Upon information and belief, Fosbel became aware of Vanocur's patented technology, if not earlier, as of October 2, 2015, the date on which Vanocur provided a tour of its facility that produces its patented technology for the Association for Iron and Steel Technology ("AIST") Cokemaking Technology Committee.

4. Much to Dick Randolph of Fosbel's dismay, as a condition of the tour, Fosbel was not allowed at Vanocur's facilities in an effort to limit Fosbel's exposure to Vanocur's patented, "BigBlock" design.

5. Upon information and belief, prior to the tour for the AIST Committee Dick Randolph of Fosbel spoke to Paul Saffrin of Vanocur and stated that he looked forward to touring Vanocur's facility, to which Paul replied that Dick was not welcome. Upon information and belief, Dick was disappointed at this limitation, and stated, "Really, Paul?"

6. Vanocur believes the knowledge of the existence of Vanocur's patented technology prompted Fosbel to investigate further and led to Fosbel gathering critical information regarding Vanocur's revolutionary coke-oven design and technology, to which Fosbel used to begin its infringing activities described herein.

7. As explained below, shortly after Fosbel learned of critical information regarding Vanocur's patented coke-oven design and technology, Fosbel engaged with its longtime business partner, Upstate Refractory Services, Inc. ("Upstate"), to begin production of a coke oven that utilized Vanocur's "Big BLOCK Solution" design instead of traditional brick. Upon information and belief, from 2016 to 2020, Fosbel continued to work with Upstate, and several other subcontractors, to develop and produce coke ovens that replicated Vanocur's "Big BLOCK Solution" design.

8. During this time, Vanocur had been engaged by Stelco, Inc. ("Stelco"), a large North American corporation, for the design and production of a coke oven that utilized the patented "Big BLOCK Solution" design. To wit, Vanocur was asked and quoted to supply 36 walls and 37 roofs into the corbel area in Stelco's oven, to which Vanocur was given a timeframe of 8 months. Vanocur diligently began working on this project, and it had completed the design portion of its engagement with Stelco by early 2020.

9. On or about March 9, 2020, Stelco issued to Vanocur, a payment of approximately \$1,000,000.00 to continue engineering Stelco's coke oven in accordance with Stelco's tight deadline. Upon information and belief, Stelco's payment to Vanocur was used to cover Vanocur's costs relating to its engineering, mold design, construction documents, construction of specialty forms, and oven modifications. Thereafter, in order to provide the necessary materials for the completion of Stelco's oven, Vanocur was to receive an additional payment of \$2,000,000.00.

10. On or about March of 2020, Vanocur had spent over \$1,000,000.00 in costs on the Stelco oven design and engineering and as a result, Vanocur began awaiting the transfer of \$2,000,000.00 to purchase the necessary materials in accordance with the timeframe set forth by Stelco.

11. On or about April of 2020, the COVID-19 pandemic fluxed Stelco's timing for the project, even though Vanocur had completed the design portion of the project for which \$1,000,000.00 had been advanced.

12. Despite having agreed in principle to a contract with Vanocur for the production of the Stelco oven that utilized Vanocur's patented "Big BLOCK Solution" design, on or about April 1, 2020, Stelco halted further work on the project due to the business uncertainties the COVID pandemic produced.

13. On or about April 2, 2020, Vanocur responded to Stelco's abrupt termination of its contract with Vanocur by stating: "A project of this type can and has historically been done on an operating battery. Please understand, if time is not of the essence, we can put 2-4 ovens back into service without the need for the current ovens being taken down. These projects are done like this all of the time. This would allow Stelco to bring ovens into service as required without production disruption."

14. Upon information and belief, Stelco was not persuaded by the above message from Vanocur and at some point, in 2020, conversations between Stelco and Fosbel regarding

Fosbel's design and production of a coke oven that also utilized Vanocur's patented "Big BLOCK Solution" design began.

15. Upon information and belief, on or about November 12, 2020, Jeff Didenedetto of Glasrock Products Inc., ("Glasrock"), a long-term business partner of Vanocur and a provider of specialty-refractory products and installation services located in Ontario, Canada told Paul Saffrin of Vanocur, that Fosbel was contracting portions of the material for the Stelco oven that Fosbel did not have the capacity to make to the following companies: Upstate, Wahl Refractory Solutions, Glasrock, and an unknown Canadian company.

16. On or about November 24, 2020, Paul Saffrin of Vanocur emailed Stelco to warn Stelco that someone (now known to be Fosbel) has been dishonest with them in that Stelco has risked infringement of Vanocur's patented technology. Upon information and belief, Stelco refused to respond to Vanocur's warning.

17. In response to hearing that Stelco had awarded its coke oven repair to another company, on or about December 8, 2020, Vanocur emailed Stelco to ask for confirmation, which stated in part: "If Stelco is looking to go in a different direction, I urge you to do your due diligence. We have been manufacturing modules solely for the coke oven industry for over 20 years. We have a state-of-the-art facility 1 ½ hours from LEW making patented modules for companies all over the world – including Dofasco and Algoma. We have an exclusivity agreement with Allied Minerals on the raw materials and all the materials are sourced in North America." However, upon information and belief, Stelco again refused to respond to Vanocur's email.

18. Upon further information and belief, Stelco agreed to use Fosbel for its coke-oven needs due to Fosbel's misrepresentation to Stelco that Vanocur's patent for its "Big BLOCK Solution" design had expired.

19. For the reasons explained in more detail below, it is Vanocur's belief that Fosbel instructed, and continues to instruct, third parties to infringe on Vanocur's patent for its "Big BLOCK Solution" coke-oven design, including but not limited to the photographs of refractory blocks that were posted on Upstate's website.

20. Vanocur informed Fosbel, through Stelco, that it was infringing on Vanocur's patent in an e-mail to the Executive Assistant to Stelco's President on January 21, 2021. With knowledge of Vanocur's patent, and after receiving Vanocur's admonitions regarding the infringement, it is believed that Fosbel continued and continues to infringe on Vanocur's patent.

21. Fosbel's actions in infringing Vanocur's patent have been, and continue to be, willful, deliberate, and/or in conscious disregard of the rights of Vanocur, making this an exceptional case within the meaning of 35 U.S.C. § 285, entitling Vanocur to enhanced damages and reasonable attorneys' fees.

22. As a result of Fosbel's infringing activities, Vanocur has sustained damages in an amount to be proven at trial, but in no event less than a reasonable royalty.

23. Fosbel will continue its infringing activities unless and until it is restrained and enjoined by this court.

24. Fosbel's infringing activities have caused, and will continue to cause, Vanocur irreparable harm for which there is no adequate remedy at law.

25. Through discovery and further investigation, Vanocur may determine that additional claims of the '853 Patent described below are being infringed and/or that additional products made, used, or sold by Fosbel infringe the '853 Patent. Vanocur reserves the right to assert additional patent claims against Fosbel.

### **THE PARTIES**

26. At all times hereinafter mentioned, Vanocur is and was a domestic limited liability company conducting business in the State of New York at 4001 River Road, Tonawanda, New York 14150.

27. At all times hereinafter mentioned, defendant, Fosbel, is and was a foreign corporation conducting business in the State of Ohio at 20600 Sheldon Road, Cleveland, Ohio 44142.

28. Fosbel is an engineering company that claims specialization in refractory repairs, construction, and maintenance in the steel, coke, and glass markets. According to

Fosbel's website, it is a worldwide leader in said markets.<sup>2</sup>

### **JURISDICTION AND VENUE**

29. Plaintiff brings this action for patent infringement under the Patent Act, 35 U.S.C. § 1, *et. seq.*, including 35 U.S.C. § 271.

30. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. § 1331, 28 U.S.C. § 1338(a), and 15 U.S.C. § 1121(a), and supplemental jurisdiction under 28 U.S.C. § 1367.

31. This Court has personal jurisdiction over Fosbel because, upon information and belief, Fosbel regularly transacts, solicits, and engages in business in the State of New York and the Western District of New York; contracts to supply goods in this State and District; advertises and markets infringing goods within this State and District; and derives substantial revenue from sales in this State and District.

32. In addition, this Court has personal jurisdiction over Fosbel because, upon information and belief, Fosbel derives substantial revenue from interstate or international commerce and as explained below, Fosbel knew or should have known that its conduct would have negative consequences in the State of New York.

33. Venue is proper in the United States District Court for the

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<sup>2</sup> <https://www.fosbel.com/> (last accessed July 14, 2023).



Western District of New York, pursuant to 28 U.S.C. § 1391 and 28 U.S.C. § 1400.

**VANOCUR REVOLUTIONIZES THE COKE-OVEN INDUSTRY**

34. Vanocur has established itself as the leader and innovator for the manufacture and repair of coke ovens. Specifically, Vanocur’s “Big BLOCK Solutions” design is a patented design solution for coke ovens that is revolutionary in construction quality, installation speed, and performance.

35. In the late 2000s, Vanocur perfected its “Big BLOCK Solutions” design for coke ovens, which are used to heat coal to extremely high temperatures (ranging from 1700 to 2700°F). Once those temperatures are achieved, destructive distillation drives all of the volatile matter out of the coal. To achieve these high temperatures, a continuous and steady supply of oxygen gas must be delivered to the coke oven. At the end of the heating cycle, a pure carbon briquette commonly referred to as coke remains, which primarily is used in steel production.

36. A coke oven corbel (“corbel”) is a specific coke-oven-structure design upon which multiple stacked tiers of refractory blocks are assembled and stacked in a manner to create a defined plurality of central flues that are substantially vertically oriented. The corbel supports the coke-oven floor and walls and sits atop the regenerator. The refractory bricks must be able to withstand high temperatures and strong mechanical loading. Meanwhile, the interior walls contain flue ducts, burners, flue-gas-control passages, fuel-gas passages, and combustion-gas passages.

37. In simple terms, to obtain the necessary heat distribution within the coke oven and gas flows through the walls, a coke-oven corbel is constructed by stacking specially designed refractory blocks. These refractory blocks not only have the necessary mechanical structure to sustain heavy loads, but also contain a variety of internal ducts which allow oxygen, fuel, and exhaust to enter/exit the coke oven.

38. To achieve the necessary temperatures to create a pure carbon briquette (i.e., coke), coke ovens are constructed in a very detailed (and oftentimes complicated) structure.

39. Traditionally, coke ovens are comprised of massive refractory brick structures in which there are batteries of adjacent parallel walls made up from a large variety of refractory bricks that are all shaped differently.

40. Most coke-oven batteries in the United States and, indeed, many throughout the world, are over 50 years old, and are in need of periodic repairs. The silica bricks that make up the oven walls, floors, and corbels begin to degrade as they age due to the cycles of heating and cooling to which they are subjected. Minor repairs are done to keep the ovens operational, and such repairs may include repairing the bricks in the ends of the walls or replacing the end portions of the walls (end-wall repairs). When the degradation of the heating wall becomes severe, the entire wall between two ovens may need to be replaced. In severe cases, the corbel portion of the oven below the oven floor can suffer the same type of degradation as the heating walls of the oven. Cracks may become so large that gas can escape through fractures or the joints between bricks and burn in the regenerator. This results in

decreased efficiency and increased operating costs. When this happens, the corbel may need to be repaired, or it may need to be partially or completely replaced.

41. When the corbel needs to be repaired or replaced, the coking chambers in the immediate vicinity are shut down, and the wall above the corbel and the portion of the corbel which needs replacement are removed. In the past, bricklayers then replace the corbel, or portion thereof, using silica bricks. The process involves hundreds or thousands of silica bricks in a multitude of different shapes, sizes, and arrangements. As there are numerous orifices which are needed to allow gas, air, and exhaust waste heat to flow through the corbel, the silica bricks need to be fit together in a manner similar to a three-dimensional jigsaw puzzle in order to get the proper shape and configuration of the corbel. This process is tremendously labor-intensive and time-consuming. Additionally, each abutment of adjacent bricks creates a joint, and each joint becomes a potential leak point as the wall or corbel begins to deteriorate with use. Because of the large number of bricks used, there are hundreds, and sometimes thousands, of potential failure points in corbels constructed using the conventional techniques and silica bricks.

42. To combat the numerous potential failure points in corbels created using the conventional techniques and silica bricks, Vanocur dedicated years to developing a design that revolutionizes the construction quality, installation speed, and performance of corbel-coke ovens. Through constant research, experimentation, and persistence, Vanocur invented an extremely efficient and high-quality repair method and product.

43. Vanocur's efforts yielded a reconstruction of corbel-coke ovens that

include large size cast monolithic thermally stable non-expanding blocks or modules. Such a reconstruction has resulted in Vanocur becoming the leader and innovator for the manufacture and repair of coke ovens utilizing its patented design, “Big BLOCK Solutions.”

44. Unlike traditional corbels, Vanocur’s revolutionary design significantly cut costs, both in reduced installation costs and in a longer expected life span. For example, a typical throughwall rebuild with traditional silica brick would require 60 skilled bricklayers. The Vanocur module, however, only requires approximately 10-12 laborers/riggers. Vanocur repairs do not require skilled bricklayers. Vanocur’s “Big BLOCK Solutions” modules replace approximately 30 bricks and are installed with rigging equipment. In a time where skilled bricklayers are at a premium, the installation cost is greatly reduced by using either in-house personnel or contracted laborers/riggers.

45. In contrast to traditional corbels, the Modular Cast Block technology utilized in Vanocur’s “Big BLOCK Solutions” results in fewer, if any, repairs that will be needed. For example, with the use of VANOCAST as opposed to the traditional silica bricks that rapidly degrade, spalling and cracking due to thermal shock are greatly reduced. This translates into reduced need for spraying and patching. Further, given that the efficiency of the corbel oven has increased, gas leakage is minimized or eliminated.

46. In sum, as the original inventor of the “Big BLOCK Solution,” Vanocur has long been referred to as the “Big BLOCK” guys and regarded as an industry leader in design, repair, and installation of coke ovens. Customers have selected Vanocur because of the

competitive advantage that it has provided through its revolutionary design and repair. However, Vanocur's progress in the coke-oven industry has also made it a target for copycat companies, like Fosbel, to infringe on Vanocur's patented design for its own benefit.

### **THE PATENT-IN-SUIT**

47. U.S. Patent Number 8,266,853 ("the '853 Patent") was issued to Vanocur on or around September 18, 2012 by the United States Patent and Trademark Office. The '853 Patent has not expired and is in full force and effect. A true and correct copy of the '853 Patent is attached hereto as **Exhibit A** and incorporated herein by reference.

48. Vanocur is the owner of all rights, titles, and interests in the '853 Patent, including the exclusive right to enforce, sue, and recover damages for past and future infringement.

49. The '853 Patent includes a total of 19 claims, including Claims 1 and 10. Claim 1 is an independent claim that recites a corbel, and Claim 10 is a dependent claim that recites a method of constructing the corbel recited in Claim 1. To wit, Claim 1 of the '853 Patent recites:

[Claim] 1. A corbel comprising:

a first tier having first blocks, each of the first blocks comprising a first, substantially horizontal aperture extending through the first block from a front surface to a back surface and a second, substantially vertical aperture formed through a top surface of the block, extending into the first aperture, the first blocks being arranged on a substantially planar surface to align the respective first apertures to define a first, substantially horizontal passageway;

a second tier having second blocks, each of the second blocks comprising a third, substantially vertical aperture

extending through the second block from a top surface to a bottom surface, the second blocks being disposed above the first tier of blocks to align the third aperture of each of the second blocks with the second aperture of the first blocks to form a second passageway;

a third passageway extending diagonally from the top of the one of the second blocks to a side of at least one of the first and second blocks; and

a gas source for providing gas to the first passageway.

*See Exhibit A.*

50. Likewise, Claim 10 of the '853 Patent recites:

[Claim] 10. A method of constructing the corbel of claim 1, comprising the steps of:

laying the first tier of blocks;

laying the second tier of blocks above the first tier of blocks; and

introducing gas to the first aperture using the gas source, the gas passing from the first passageway into the second passageway.

*Id.*

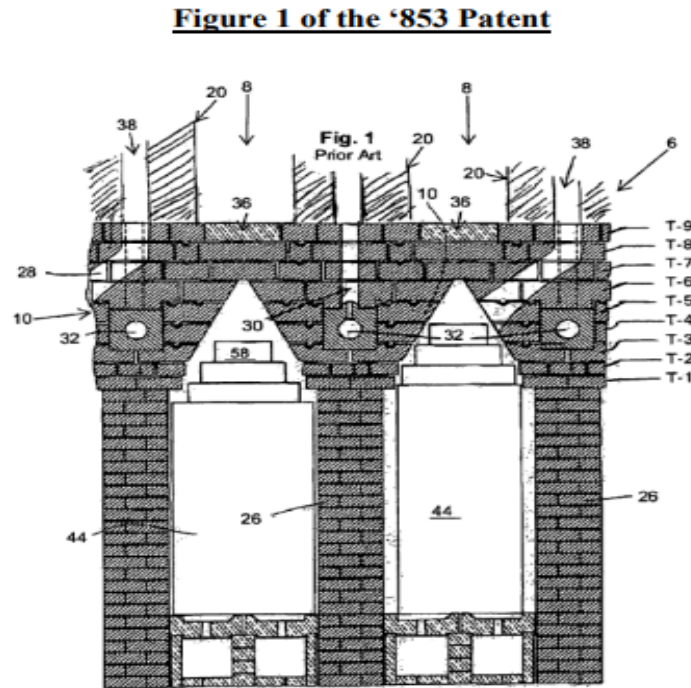
51. By organizing the specifically designed refractory blocks contained in Claim 1 via the method recited in Claim 10, one will have created a coke oven capable of achieving the high temperatures necessary to create a pure carbon briquette.

52. Vanocur's '853 Patent depicts a series of refractory block configurations. *See Exhibit A.* These configurations have specific features, which are individually identifiable via a corresponding numerical designation. The figures of the '853 Patent show in detail the individual layers of blocks that go into making the corbel and the steps in which the layers are placed to form the corbel.

53. The invention disclosed in the '853 Patent is shown in the figures below.

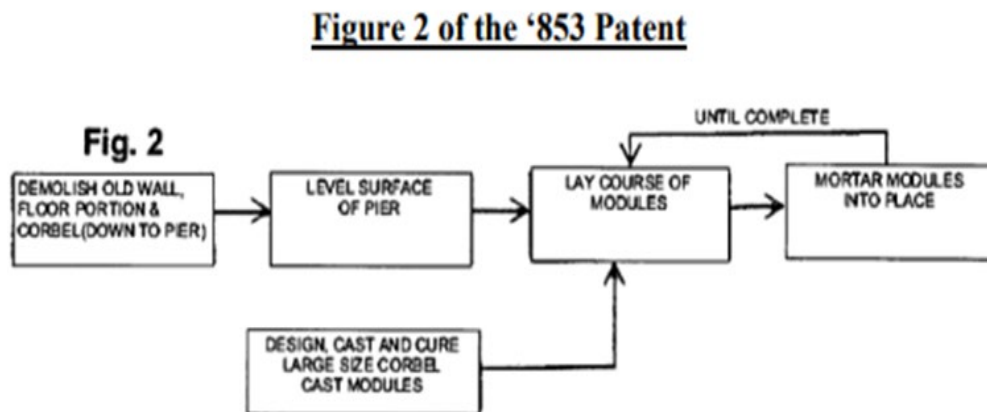
Example images from Exhibit A have been reproduced below, the first of which depicts

“Figure 1” of the ‘853 Patent:



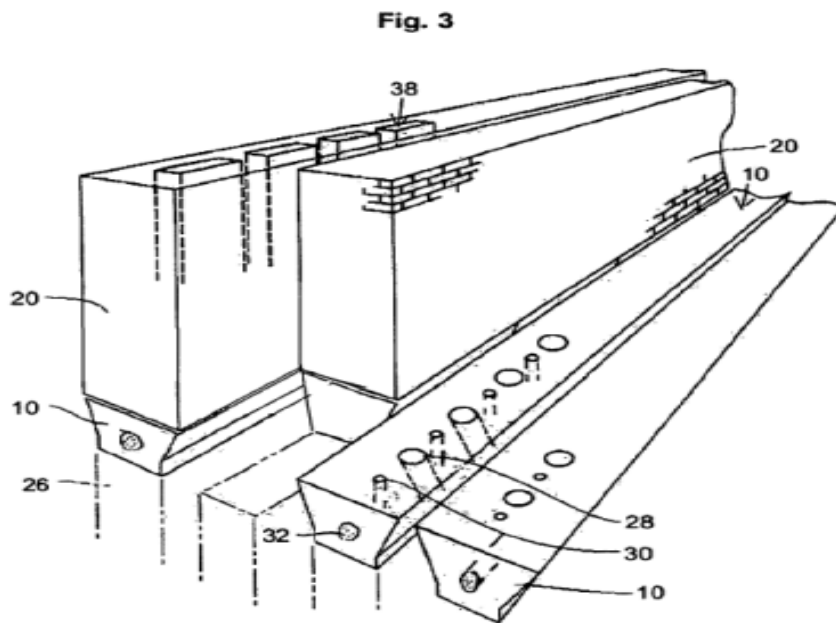
54. Next, the following image from Exhibit A depicts “Figure 2” of the ‘853

Patent:

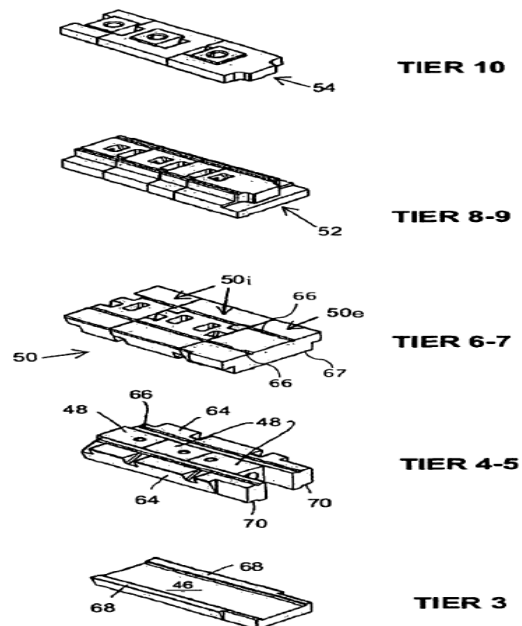


55. The next image depicts “Figure 3” of the ‘853 Patent:

**Figure 3 of the ‘853 Patent**



56. Next is “Figure 4” of the ‘853 Patent:

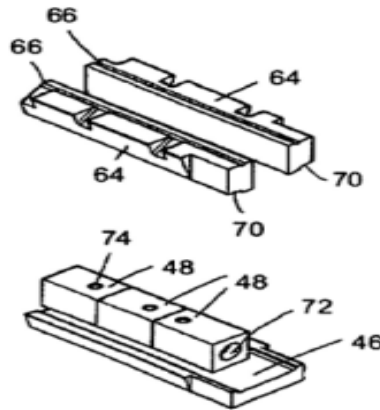




57. Figure 4 depicts the shape and configuration of the different layers of tiered blocks specified in Claim 1 of the '853 Patent. *See Exhibit A.*

58. The next image depicts "Figure 5" of the '853 Patent:

**Figure 5 of the '853 Patent**



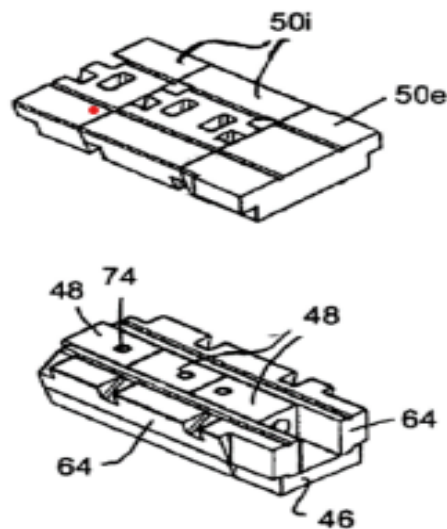
59. As demonstrated by the figures above, the first course or tier of blocks to be laid, the foundation block (46), rests on the substantially planar top of the pier (26) (or a lower tier of the corbel if the corbel has not been entirely removed). The foundation block (46) in this embodiment preferably is the thickness of one course of silica bricks, although it can be thicker. The foundation block preferably is the width of the corbel and can have any length that can be practicably cast. The foundation block is likely a fraction of the overall length of the corbel. As will be understood, the foundation block replaces numerous original bricks.

60. In one embodiment shown, the foundation block has two raised lips (68) one at each of the outer edges. The lips (68) run lengthwise along the length of the block. The tier of blocks above the foundation blocks, which is referred to in the claims as the first tier, includes two types of blocks, namely, gunblocks (48) and lateral blocks (64). The lateral blocks (64) are placed on

either side of the gunblocks (48). The gunblocks, referred to in the claims as first blocks, have horizontal apertures (72) that run lengthwise through the blocks to define the horizontal gas lines. Vertical apertures (74) extend upwardly from the horizontal apertures (72) to define the initial portion of the vertical gas lines flues. The lateral blocks preferably are the same height as the gun blocks, but may be longer, shorter, or the same length.

61. The next image depicts “Figure 6” of the ‘853 Patent:

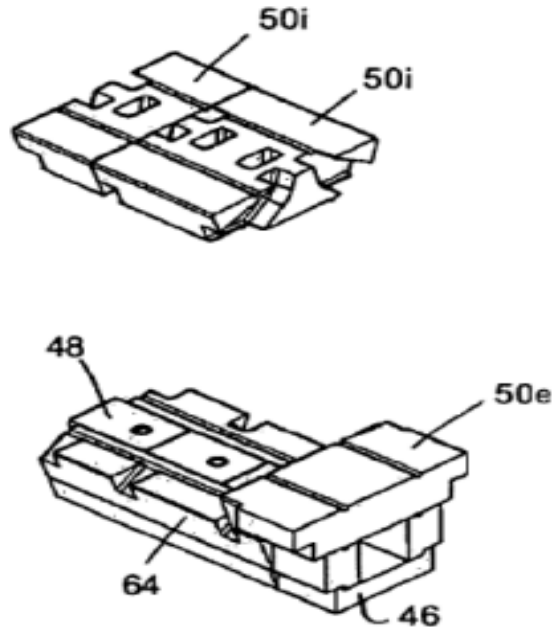
**Figure 6 of the ‘853 Patent**



62. Figure 6 shows the lateral blocks (64) emplaced in their correct position next to the gunblocks (48). The lateral blocks (64) are placed alongside the gunblocks (48), with the lengthwise indentation (70) mating with the raised lips. As illustrated, the horizontal apertures (72) align to form the substantially horizontal gas line.

63. Next, “Figure 7” of the ‘853 Patent is depicted:

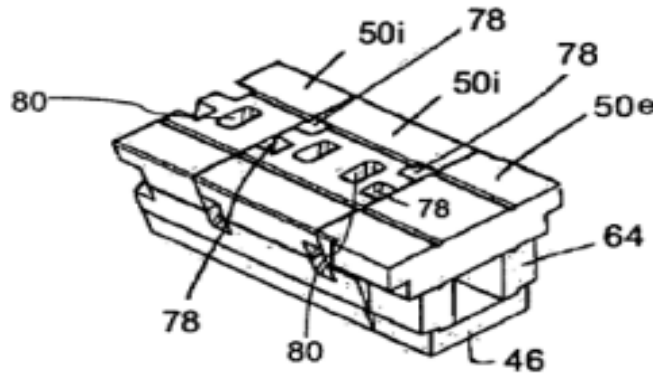
**Figure 7 of the ‘853 Patent**



64. Figure 7 shows one of the end modules (50e) emplaced. The intermediate blocks (50i) are designed to rest on one or both of the lateral blocks (64) and the gunblocks (48). The intermediate blocks (50i) include a number of apertures formed therethrough. In the illustrated embodiment, substantially vertical apertures (80) are disposed through the intermediate block (50i), extending from the top surface to the bottom surface. Diagonal apertures (78), best shown in Figure 7, depend angularly through the intermediate blocks (50i) from the top surface to one or both of the side and bottom surfaces. The vertical apertures (80) and/or the diagonal apertures (78) may also be formed in the end blocks (50e). Raised ridges (71) are provided on the bottom surface of the intermediate and end blocks (50i, 50e).

65. Next, “Figure 8” of the ‘853 Patent is depicted:

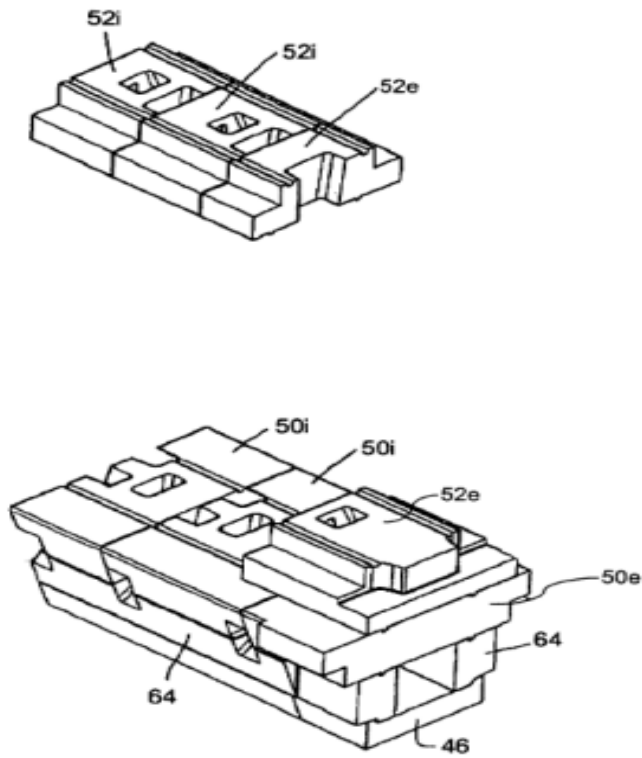
**Figure 8 of the ‘853 Patent**



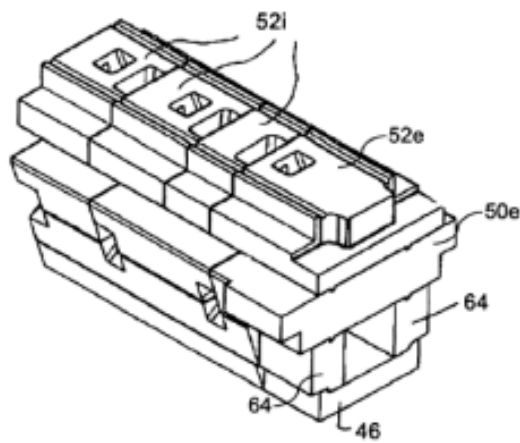
66. As shown in Figure 8, the blocks (50e) and (50i) are fitted together on the lower tier. When so placed, the vertical apertures (80) substantially align with the vertical aperture (74) of the gunblocks to form a portion of the flue, and the diagonal apertures (78) align with the angled notches (71) of the lateral blocks to form air passageways when the intermediate and end blocks (50i, 50e) are placed on the lower tier, the raised ridges (67) align and mate with the groves (66) of the lateral blocks (64), to ensure proper alignment. Subsequent tiers also are formed with grooves and ridges. Other alignment techniques also are known and could be used.

67. The next images depict “Figure 8a” and “Figure 9” of the ‘853 Patent:

**Figure 8a of the ‘853 Patent**



**Figure 9 of the ‘853 Patent**

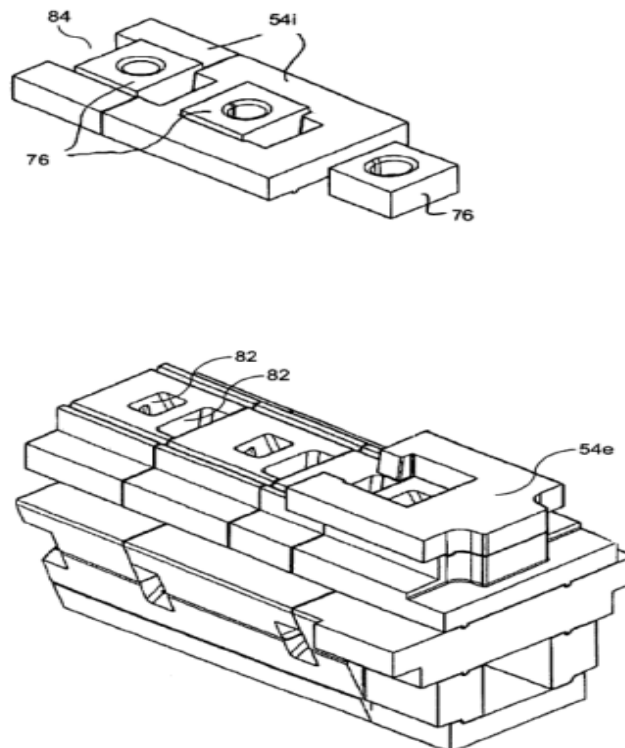


68. Figures 8a and 9 show inner modules (52i) and an end module (52e) of the next tier, referred to as the third tier in the claims, of modules shown in Figure 8. These modules (52e and 52i) include a number of apertures (82). When placed on the lower tier, the apertures (82) substantially align with the vertical apertures (80) and the diagonal apertures (78) of the lower tiers.

69. Figure 9 shows the tier 8-9 modules (52), the third tier in the claims, emplaced on the tier 6-7 blocks (50), the second tier in the claims. As noted above, the tier 8-9 blocks are cast with suitable passageways and vertical apertures for the flow of gas and air. The final, or uppermost tier forms the base of the wall and includes top layer blocks (54), referred to as first top tier blocks in the claims, and gas blocks (76), referred to second top tier blocks in the claims.

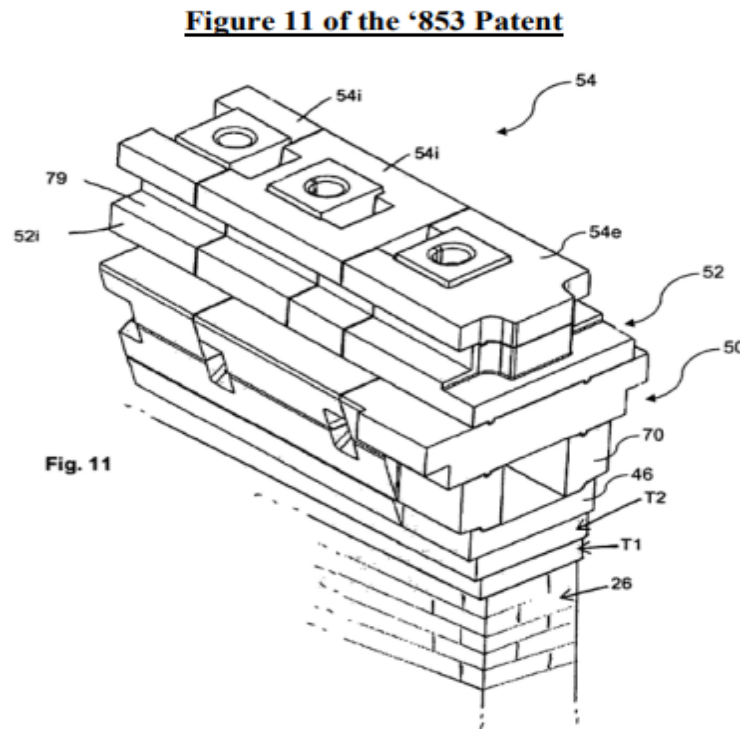
70. The next image depicts “Figure 10” of the ‘853 Patent:

**Figure 10 of the ‘853 Patent**



71. Figure 10 shows the first top layer block emplaced on top of the top row of intermediate blocks. The top layer blocks rest on the blocks in the lower tier, and each includes cavities (84), the cavities being sized to receive the gas blocks (76) therein.

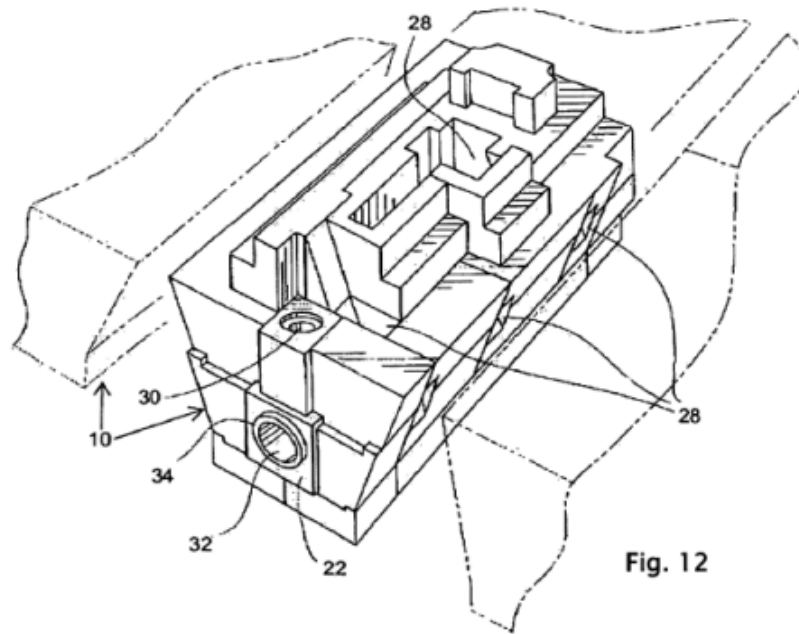
72. “Figure 11” of the ‘853 Patent is the next image depicted below:



73. Figure 11 shows a completed section of a corbel constructed according to this invention, with all the blocks in place. Openings are shown for air (28) and a gas gun (56).

74. Finally, the next image depicts “Figure 12” of the ‘853 Patent:

**Figure 12 of the ‘853 Patent**



75. As illustrated by the figures above, in one embodiment a single lateral block is longer than three gunblocks. Each lateral block (64) preferably includes a lengthwise indentation (70) formed of an outside, bottom surface. In addition, a number of angled notches (71) are formed at top, outside surfaces of the lateral blocks. In another embodiment, the notches (71) could be bound on all sides, thus creating a diagonal passageway opening at the top and side of the lateral block. A groove (66) also is formed along the length of the lateral block. In the embodiment shown, this tier of blocks, as well as the two tiers above it, shown generally at (50) and (52) in Figure 4, are the thickness of two layers of silica bricks, although they can be thicker or thinner. As can be seen, blocks in both the latter two tiers have cavities of various shapes which define portions of gas lines and flues. The gunblocks (48) are placed on the foundation block (46) between the raised lips (68).



### **FACTUAL BACKGROUND**

76. Prior to Fosbel's infringing scheme, Fosbel generally produced its refractory blocks in China and upon information and belief, Fosbel never chose to utilize the United States for such matters until after Fosbel became aware of the existence of Vanocur's patented technology, which was October 2, 2015, if not earlier.

77. Upon information and belief, after obtaining critical information relating to Vanocur's patented technology, Fosbel subcontracted with Upstate Refractory Services, Inc., a New York engineering and manufacturing company that, inter alia, manufactures and installs precast refractory blocks and furnace-related components. Upstate's primary point of contact at Fosbel regarding the manufacturing of these infringing blocks was Ernie Goffi, who is the Vice President – Global Business Development: Business Unit Director, Coke Americas Division at Fosbel.

78. Upon information and belief, Fosbel directed Upstate to manufacture coke-oven components that necessarily infringe on the '853 Patent.

79. Upon information and belief, Upstate manufactured the infringing blocks of corbel 10 under direction of Fosbel, and then provided and supplied Fosbel with those infringing blocks. Fosbel in turn assembled, kept, and/or provided the blocks as shown below to the following locations and/or companies: Fosbel in Brook Park, OH; USX Clairton in Clairton, PA.; and Stelco Inc. in Nanticoke, Ontario, Canada.

80. On or about September 21, 2016, infringing blocks (illustrated *infra*) were manufactured by Upstate at the direction of and in accordance with the specifications and materials provided by Fosbel.

81. On or about September 21, 2016, Fosbel arranged for shipment of infringing blocks depicted *infra*, and upon information and belief, the infringing blocks, such as block (20), were transported to and are now located at Fosbel in Brook Park, OH.

82. On or about May 2, 2017, infringing blocks (illustrated *infra*) were manufactured by Upstate at the direction of and in accordance with specifications and materials provided by Fosbel.

83. On or about May 2, 2017, Fosbel arranged for the shipment of the infringing blocks that are depicted below, and, upon information and belief, the infringing blocks were transported to and are now located at USX Clairton in Clairton, PA.

84. On or about October 24, 2018, the infringing blocks (illustrated *infra*) were manufactured by Upstate at the direction of and in accordance with the specifications and materials provided by Fosbel.

85. On or about October 24, 2018, Fosbel arranged for shipment of the blocks depicted below, and, upon information and belief, the blocks were transported to and are now located at Stelco Inc. (“Stelco”), a Canadian steel manufacturer, in Nanticoke, Ontario, Canada.

86. Upon information and belief, Fosbel hired Upstate to make the infringing blocks for the Stelco coke oven. Fosbel directed Upstate to manufacture at least a portion of the blocks for the corbel of the Stelco coke oven. The same is corroborated in a signed declaration by David Wetmore, President of Upstate Refractory Services, Inc., of May 22, 2023.

87. On or about April 2019, Fosbel was purchased by The Anderson Group LLC, (“Anderson”) a private equity investment firm that typically acquires businesses in the manufacturing, distribution and services industries. With the Anderson’s support, Fosbel not only increased its monetary “manpower,” but also developed significant business relationships with companies that are capable of assisting Fosbel in its infringement of Patent ‘853. See Paragraph No. 93, below.

88. While Fosbel and Upstate were engaged in infringing activities, Vanocur and Stelco underwent a series of discussions regarding Vanocur manufacturing a coke oven at Stelco’s Lake Erie Works location, *i.e.*, 2330 Haldimand 3, Nanticoke, ON N0A1L0 (“Lake Erie Works”). Vanocur’s potential services for Stelco would have included either building a new coke oven or repairing an existing coke oven, but specifically, assembling one or more corbels for Stelco.

89. Stelco then hired Fosbel to construct the Stelco coke oven. Fosbel subcontracted with multiple companies in order to manufacture and assemble the blocks and tiers of the Stelco coke oven, including Upstate.

90. On or about December 2020, Anderson, of which Fosbel, Inc. is a portfolio company, acquired Wahl Refractory Solutions, an Ohio manufacturer and distributor of refractory

precast shapes and castables. Pursuant to this arrangement, Wahl continued its business under the direction of Fosbel, and thus, provided Fosbel with the opportunity to utilize Wahl's Ohio manufacturing plant to vertically integrate its supply chain in the development of infringing materials.

91. On or around January 21, 2021, Vanocur alerted Stelco that Fosbel planned to infringe on one or more of Vanocur's patents that cover both the modules or blocks and their installation.

92. On or about October 27, 2021, Mike Durkin of Vanocur learned of a conversation that Sam Coleman, a former Bluestone Coke LLC ("Bluestone") employee and a former subcontractor for Erie Coke Corporation, had with Jerry Scott, who is Regional Manager of Operations at Fosbel's facility in Brookpark, Ohio confirmed Fosbel's knowledge of Vanocur's patent on the "Big BLOCK Solutions" design (the '853 Patent), and also indicated that Fosbel planned to work with Vanocur's "Big BLOCK" design instead of Fosbel's traditional brick under the guise that Vanocur's patented technology had expired, and Vanocur could only now do repairs.

93. To wit, on or about the midafternoon of October 27, 2021, following Bluestone's announcement that it was "temporarily hot idling" its coke ovens, Mr. Scott of Fosbel expressed interest in contracting with Bluestone under which Fosbel would rehabilitate Bluestone's coke ovens utilizing Vanocur's patented "Big block" design for \$50,000,000.00 paid in advance.

94. Upon information and belief, Fosbel knew that Vanocur's '853 Patent had not expired as a simple search of the '853 Patent would have revealed its term.

**FOSBEL'S CONCEALMENT OF ITS INFRINGING ACTIVITIES**

95. In April 2022, Vanocur previously initiated a lawsuit against Fosbel, Stelco, and Upstate due to suspected patent infringement of the '853 Patent. *See generally* Civil Docket No.: 5:22-cv-00311-BKS-TWD.

96. Vanocur's prior lawsuit was based on, among other things, images obtained from Upstate's website which revealed that Upstate was in possession of refractory bricks that looked remarkably similar to Vanocur's patented refractory-brick corbel design. A reproduction of the content found on Upstate's website is attached hereto as **Exhibit B**.

97. Thereafter, counsel for Fosbel, Stelco, and Upstate engaged in a series of discussions regarding the alleged patent infringement. *See* Civil Docket No.: 5:22-cv-00311-BKS-TWD, [ECF No. 22]. As part of these discussions, Stelco agreed to allow Vanocur to conduct a confidential-site inspection of its property.

98. Based on communications with Fosbel, Stelco, and Upstate, and the confidential-site inspection of Stelco's property, Vanocur voluntarily dismissed the prior lawsuit without prejudice pursuant to Federal Rule of Civil Procedure ("FRCP") Rule 41(a)(1)(A)(i).

99. However, after the voluntary dismissal, Vanocur still had one outstanding question remaining: Where did the infringing refractory blocks depicted in photographs obtained from Upstate's website end up? Vanocur's legal counsel determined these refractory blocks likely infringed on Vanocur's '853 Patent, and Vanocur was determined to figure out who was

manufacturing the infringing blocks.

100. Plaintiff's counsel made several informal attempts to resolve this outstanding question with Upstate and its legal counsel. Nonetheless, these informal attempts failed, forcing Vanocur to resort to filing a petition, pursuant to FRCP Rule 27 against Upstate. *See generally* Civil Docket No.: 1:23mc00010-LJV, [ECF No. 13].

101. In an effort to avoid further burdening the Court (as well as Vanocur and Upstate), Upstate agreed to provide a sworn declaration responsive to Vanocur's outstanding questions regarding the refractory blocks depicted on Upstate's website. Accordingly, on May 22, 2023, David Wetmore, President of Upstate, executed the sworn declaration attached hereto as **Exhibit C** (the "Wetmore Declaration"). Thereafter, the FRCP Rule 27 petition was dismissed without prejudice. *See* Civil Docket No.: 1:23mc00010-LJV.

102. Pursuant to the Wetmore Declaration, Vanocur came to learn that, between September 2016 and October 2018, Upstate manufactured the refractory blocks depicted in Exhibit B "at the direction of and in accordance with specifications and materials provided by Fosbel." *See* Exhibit C at ¶¶ 7, 11, and 17. Additionally, plaintiff learned that some of the atissue refractory blocks depicted in Exhibit B had been supplied to Stelco, and others had been supplied to and remain at USX's facility in Clairton, PA and Fosbel's facility in Brook Park, Ohio. *See id.* at ¶¶ 13 and 17.

103. The Wetmore Declaration unequivocally reveals that Fosbel directed and

facilitated Upstate to manufacture the at-issue refractory blocks depicted on Upstate's website. The refractory blocks created by Upstate, at the direction of Fosbel, have distinct characteristics that necessarily infringe on plaintiff's '853 Patent. *See* Exhibit B.

104. The Wetmore Declaration also unequivocally reveals that Fosbel directed and facilitated the transfer of these at-issue refractory blocks to Fosbel's facility in Brook Park, Ohio, USX Corporation's facility in Clairton, Pennsylvania, as well as Stelco's facility in Nanticoke, Ontario, Canada.

105. However, at no time during the communications of Vanocur's counsel with Fosbel, Stelco, and Upstate to resolve the prior action (*See generally* Civil Docket No.: 5:22-cv-00311-BKS-TWD) did Fosbel, Stelco, or Upstate disclose that these infringing refractory blocks were located at Fosbel's or USX's facilities.

106. Accordingly, Fosbel actively concealed its infringing activities while Vanocur pursued other parties (Stelco and Upstate) who benefitted from Fosbel's infringing activities.

#### **FOSBEL'S INFRINGEMENT ON THE '853 PATENT**

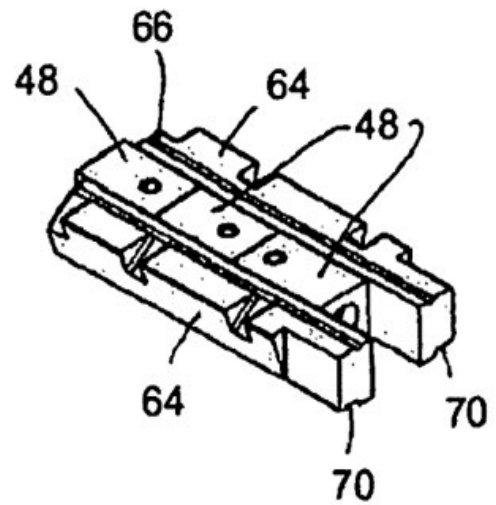
107. As demonstrated by the below comparison of the photos taken from Upstate's website depicting the infringing refractory blocks and the Figures from the '853 Patent (*i.e.*, a marked-up image from Exhibit B), the refractory blocks that were created by Upstate at the direction of Fosbel have distinct characteristics that necessarily infringe on plaintiff's '853 Patent:

**Diagram 1**

**Infringing Photo 1**

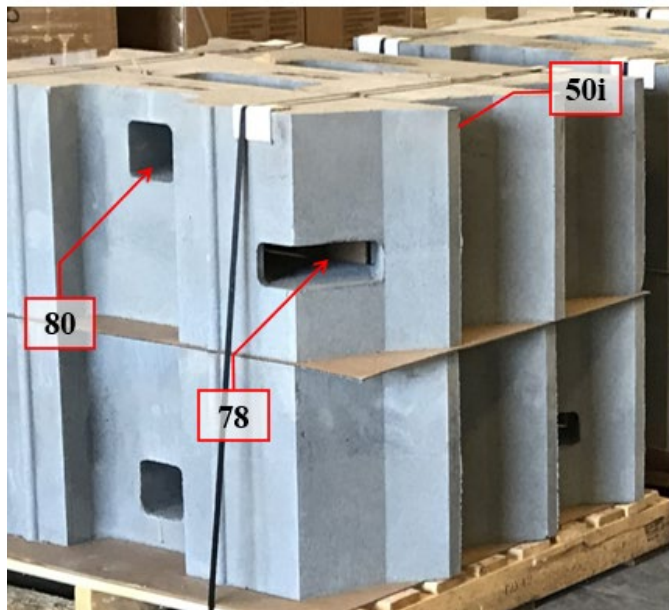


**Figure 4 '853 Patent**

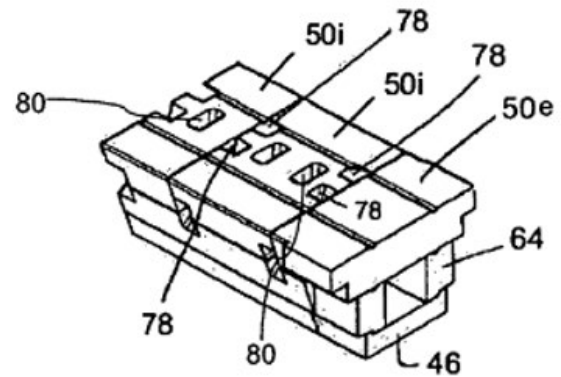




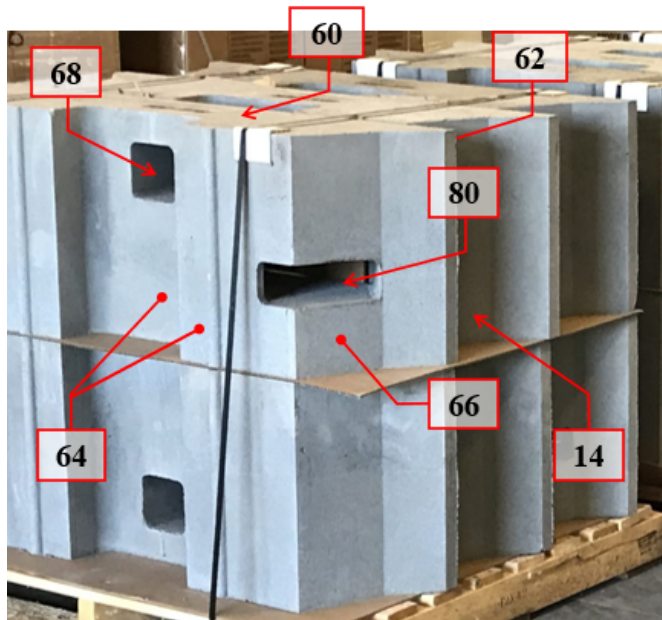
**Infringing Photo 1.a**



**Figure 8 '853 Patent**



**Infringing Photo 1.b**



**Claim 1; Elements 2-3, '853 Patent**

a second tier (14) having second blocks (60), each of the second blocks (60) comprising a third, substantially vertical aperture (68) extending through the second block (60) from a top surface (62) to a bottom surface (64), the second blocks (60) being disposed above the first tier of blocks to align the third aperture (68) of each of the second blocks (60) with the second aperture of the first blocks to form a second passageway;

a third passageway (80) extending diagonally from the top (62) of the one of the second blocks (60) to a side of at least one of the first and second blocks (60);

\*Reference numerals are representative

108. Diagram 1 shows a perspective view of a block manufactured by Upstate and advertised on their website. Specifically, Diagram 1 shows a bottom perspective view of the second block (60) from Claim 1 of the ‘853 Patent. Second blocks (60) form the second tier (14) of the ‘853 Patent. Each of the second blocks (60) are comprised of a substantially vertical aperture (*i.e.*, Tier 3 at aperture (68)), which extend through second blocks (60) to aperture (64). Upon information and belief, the purpose of such apertures is to form a passageway with other block tiers of the ‘853 Patent (not depicted in Diagram 1).

109. Upon information and belief, and corroborated in the signed declaration from Upstate’s President, Diagram 1 shows a bottom perspective view of second block (60). The second blocks (60) form second tier (14), and each of second blocks (60) comprise third, substantially vertical aperture (68) extending through second block (60) from top surface (62) to bottom surface (64) (bottom surface (64) can be interpreted as either of the surfaces indicated above), second blocks (60) being disposed above first tier (12) (not shown) of blocks (20) (not shown) to align third aperture (68) of each of second blocks (60) with second aperture (30) (not shown) of first blocks (20) (not shown) to form a second passageway.

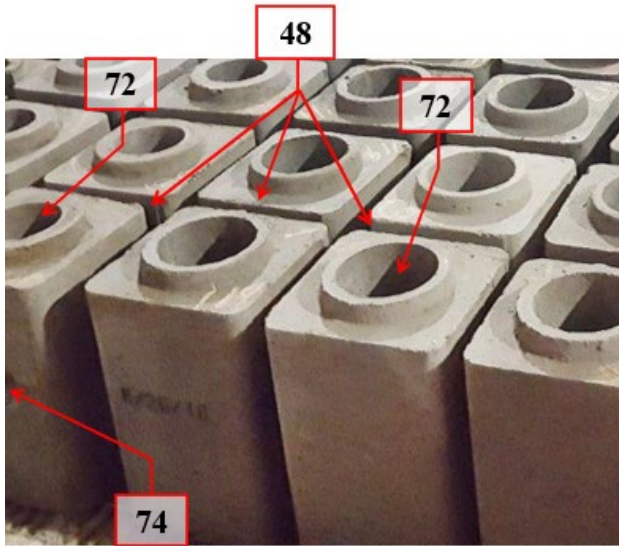
110. Upon information Vanocur provided to us, Upstate manufactured second blocks (60) and provided them to Fosbel for use with corbel (10).

111. The same picture is present in the signed declaration of David Wetmore. Specifically, the declaration states that (1) “blocks that were manufactured by Upstate on or about May 2, 2017, at the direction of and in accordance with specifications and materials provide by Fosbel Inc. (“Fosbel”)”; and (2) “On or about May 2, 2017, Fosbel arranged for shipment of the blocks

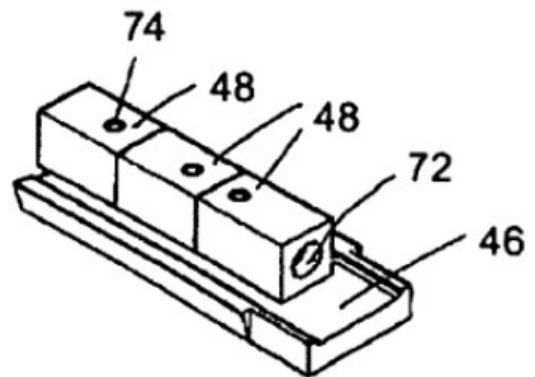
depicted [in Infringing Photos 1, 1.a, and 1.b] from Upstate's facility in Newark, NY, and upon information and belief, the blocks were transported to and are now located at USX Clairton in Clairton, PA.”

**Diagram 2**

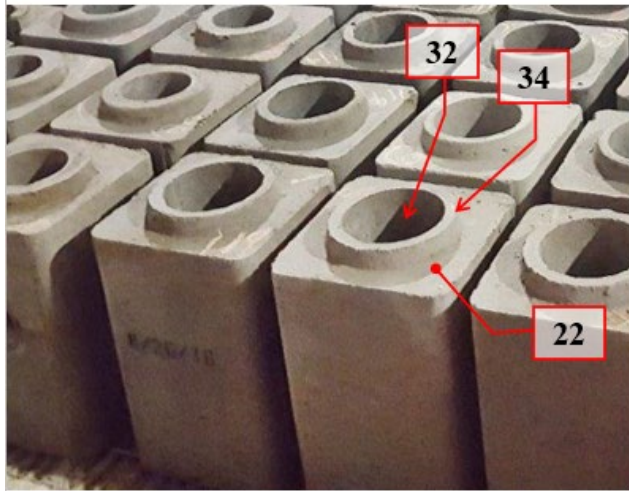
**Infringing Photo 2**



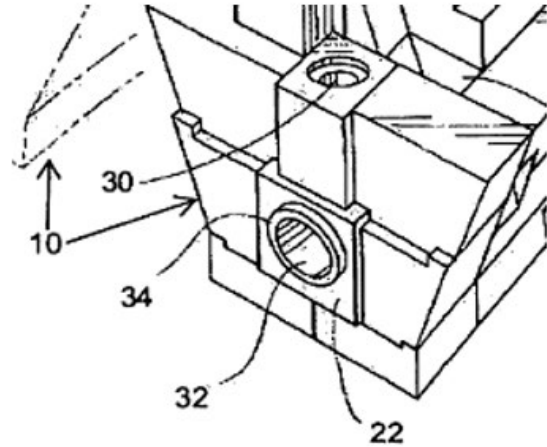
**Figure 5 '853 Patent**



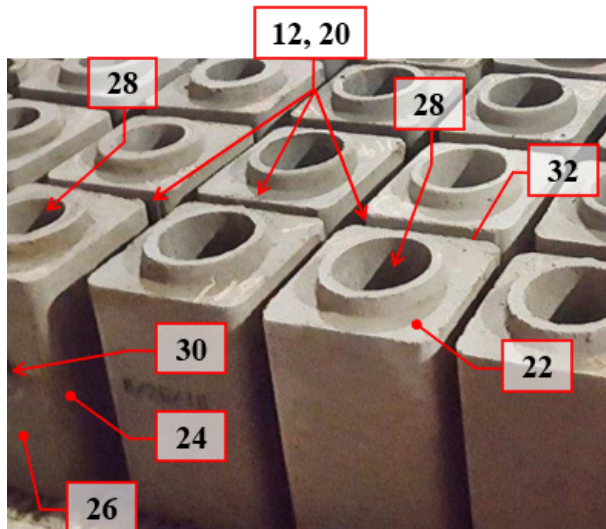
**Infringing Photo 2.a**



**Figure 12 '853 Patent**



**Infringing Photo 2.b**



**Claim 1; Element 1, '853 Patent**

a first tier (12) having first blocks (20), each of the first blocks comprising a first, substantially horizontal aperture (28) extending through the first block (20) from a front surface (22) to a back surface (24) and a second, substantially vertical aperture (30) formed through a top surface (26) of the block (20), extending into the first aperture (28), the first blocks (20) being arranged on a substantially planar surface to align the respective first apertures (28) to define a first, substantially horizontal passageway;

\*Reference numerals are representative



112. Diagram 2 shows a perspective view of a block manufactured by Upstate and advertised on its website. Specifically, Diagram 2 shows a top perspective view of the first block (20) from Claim 1 of the '853 Patent. First block (20) forms the first tier (12) of the '853 Patent. Each of the first blocks (20) are comprised of a substantially horizontal aperture (*i.e.*, designation (68)), which extends through the second blocks (60) to aperture (64). The purpose of such apertures is to form a passageway with other block tiers of the '853 Patent (not depicted in Diagram 2).

113. Upon information and belief, and corroborated by a signed declaration from Upstate's President, Diagram 2 shows a top perspective view of first block (20). First block (20) forms the first tier (12), and each of first blocks (20) comprise the first, substantially horizontal aperture (28) extending through the first block (20) from front surface (22) to back surface (24) and the second, substantially vertical aperture (30) formed through top surface (26) of block (20), extending into the first aperture (28), the first block (20) being arranged on substantially planar surface (42) (not shown in Figure 2) to align the respective first apertures (28) to define a first, substantially horizontal passageway. Specifically, upon information and belief, bottom surface (32) is arranged on planar surface (42) (not shown), and second vertical aperture (30) is aligned with the third vertical aperture (68) to form a second passageway. Horizontal holes (28) of adjacent first blocks (20) align to form a first passageway, which is connected to a gas source.

114. Upon information and belief, Upstate manufactured the first blocks (20) and provided them to Fosbel for use with corbel (10).

115. Each of the first blocks (20) comprise a lip on the front surface (22) circumscribing at least a portion of first passageway (28), as recited in Claim 5 of the '853 Patent.

116. A person having ordinary skill in the art would be led to believe that rear surface (24) comprises a recess circumscribing at least a portion of first passageway (28), to engage with the lip, as recited in Claim 6 of the '853 Patent.

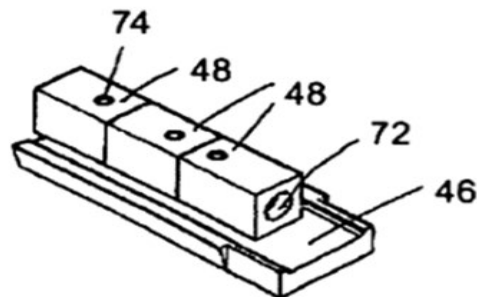
117. The same picture is present in the signed declaration of David Wetmore. Specifically, the declaration states that (1) the “blocks that were manufactured by Upstate on or about September 21, 2016, at the direction of and in accordance with specifications and materials provide by Fosbel Inc. (“Fosbel”)”; and (2) “[o]n or about September 21, 2016, Fosbel arranged for shipment of the blocks depicted . . . from Upstate’s facility in Newark, NY, and upon information and belief, the blocks were transported to and are now located at Fosbel in Brook Park, OH.”

### **Diagram 3**

**Infringing Photo 3**



**Figure 5 '853 Patent**



**Infringing Photo 3.a**



**Claim 7, '853 Patent**

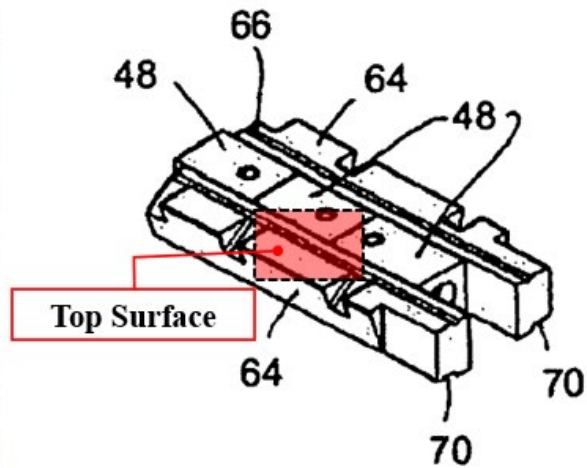
The corbel of claim 1, further comprising at least one foundation block (40), the first tier and second tier being positioned above the foundation block (*on a substantially planar surface (42) of foundation block*).

\*Reference numerals are representative

**Infringing Photo 3.b**



**Figure 4 '853 Patent**



118. Diagram 3 shows a perspective view of various blocks manufactured by Upstate that were advertised on its website. Specifically, Diagram 3 shows a top perspective view of foundation block (40) of Claim 1 of the '853 Patent. Foundation block (40) comprises substantially of a flat surface (*i.e.* designation (42)), by which first tier (12) and second tier (14) of the '853 Patent would be positioned. Each of the first blocks (20) are comprised of a substantially horizontal aperture (*i.e.*, designation (68)), which extends through second blocks (60) to aperture (64). The purpose of such apertures is to form a passageway with other block tiers of the '853 Patent (not depicted in Diagram 2).

119. Upon information and belief, and corroborated in the signed declaration from Upstate's President, Diagram 3 shows a top perspective view of foundation block (40) comprising a substantially planar surface (42), first tier (12) and second tier (14) being positioned above foundation block (40), as recited by Claim 7 of the '853 Patent.

120. Upon information and belief, the first blocks (20) are arranged on top of the foundation blocks (40). Specifically, the bottom surface (32) of the first blocks (20) engages the substantially planar surface (42) of foundation block (40).

121. Upon information and belief, Upstate manufactured the foundation blocks (40) and provided them to Fosbel for use with corbel (10).

122. It should be appreciated that the first blocks (20) can be arranged on any substantially horizontal surface according to the limitations of Claim 1 of the '853 Patent, which does not require the exact geometry of the foundation block (40) shown above.



123. Diagram 3 also shows the lateral blocks (50) comprising the top surface (52) and bottom surface (54). Bottom surface (54) sits on the surface (44), and the top surface (52) engages the second blocks (60). Lateral blocks (50) are arranged proximate sides of first blocks (60), as recited in Claim 3 of the ‘853 patent.

124. The same picture is present in the signed declaration of David Wetmore. Specifically, the declaration states that (1) the “blocks that were manufactured by Upstate on or about October 24, 2018, at the direction of and in accordance with specifications and materials provide by Fosbel Inc. (“Fosbel”); and (2) “[o]n or about October 24, 2018, Fosbel arranged for shipment of the blocks depicted . . . from Upstate’s facility in Newark, NY, and upon information and belief, the blocks were transported to and are now located at Stelco Inc. in Nanticoke, Ontario, Canada.”

125. In sum, the refractory blocks created by Upstate, with specifications provided by and at the direction of Fosbel, have detailed and precise characteristics that necessarily conform to Vanocur’s ‘853 Patent. To wit, the Wetmore Declaration makes clear that Upstate manufactured blocks (20) and (60) at the direction of Fosbel, which are specifically utilized in the corbels covered by Vanocur’s ‘853 Patent. *See* Exhibit C.

126. Upon information and belief, there exists no non-infringing use for the refractory block components created by Upstate, at the direction of Fosbel, other than for use in creating the corbels of a coke oven.

127. Fosbel not only directed Upstate to manufacture these infringing coke-oven components, but, upon information and belief, actively induced the combination of these components (and other patented components) outside the United States via the arrangement Fosbel had with Stelco.

128. Moreover, upon information and belief, Fosbel knowingly caused such components to be combined outside the United States via the arrangement between Fosbel had with Stelco.

**COUNT ONE**  
**INFRINGEMENT OF THE '853 PATENT**

129. Vanocur repeats and realleges the allegations set forth in the foregoing paragraphs, and states further:

130. This cause of action arises under 35 U.S.C. §§ 271(f)(1) and (2), among other federal statutes.

131. 35 U.S.C. 271(f) provides an opportunity for a patent holder to hold a potential infringer liable in a situation that is analogous to the circumstances in the present case.

132. Section 271(f) was created solely to close a loophole that would allow an infringer to reap the benefits of American technology, labor, and materials but not be subject to U.S. patent laws since the components were not actually assembled in the U.S. to form the patented invention.

133. The statute provides that “[w]hoever without authority supplies or causes to be supplied in or from the United States all or a substantial portion of the components of a patented invention, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.” 35 U.S.C. § 271(f)(1).

134. Additionally, 35 U.S.C. § 271(f)(2) provides that “[w]hoever without authority supplies or causes to be supplied in or from the United States any component of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.” Section 271(f)(2) merely requires that any component be supplied from the U.S. but not be suitable for substantial noninfringing use, and knowledge that combination within the U.S. would infringe the patent. 35 U.S.C. § 271(f)(2).

135. Section 271(f) prohibits the partial manufacture or assembly of patented objects or their component parts in the U.S. for export to foreign countries.

136. Court have interpreted the language “actively induce” of § 271(f)(1) includes liability against those who actually supply the components as well as those

(contributory infringers) who cause others to supply components, even if the components are staple articles or commodities of commerce suitable for non-infringing use.

137. Vanocur is the assignee of the '853 Patent. *See* Exhibit A.

138. Fosbel has infringed and continue to infringe one or more claims, including Claims 1 and 10, of the '853 Patent in violation of 35 U.S.C. §§ 271(f)(1) and (2).

139. Fosbel caused a substantial portion of the components and/or a single component of the '853 Patent to be supplied from the United States so as to actively induce their combination in Canada in a manner that would infringe the '853 Patent.

140. Specifically, Fosbel directed Upstate to provide refractory blocks, which have no apparent non-infringing use, with knowledge and intent that the infringing refractory blocks would be assembled in Canada at the infringing Stelco coke oven.

141. This can be demonstrated by blocks 20 and 60, which is a substantial portion of the invention claimed in the '853 Patent and have no non-infringing use as they were manufactured specifically for the Stelco coke oven and block 20 was directed to be transported to Fosbel in Ohio.

142. As such, Fosbel is liable for infringement of the '853 Patent under 35 U.S.C. § 271(f)(1) by causing a substantial portion of the components of the '853 Patent (e.g., blocks 20 and 60) to be supplied from the U.S. so as to actively induce their combination in

Canada in a manner that would infringe the ‘853 Patent in the U.S, or another location, as there appears to be no other use for the aforementioned blocks other than to construct corbel 10.

143. Fosbel is also liable for infringement of the ‘853 Patent under 35 U.S.C. § 271(f)(2) by causing a component of the ‘853 Patent (e.g., block 60) to be supplied from the U.S. knowing that the component would be combined in Canada in a manner that would infringe the ‘853 Patent if the combination occurred in the U.S., and the component (e.g., block 60) is not suitable for substantial non-infringing use.

**COUNT TWO**  
**LITERAL INFRINGEMENT**

144. Vanocur repeats and realleges the allegations set forth in the foregoing paragraphs, and states further:

145. Whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States, or imports into the United States any patented invention during the term of the patent is guilty of patent infringement under 35 U.S.C. § 271(a).

146. Upon information and belief, Fosbel has been making, using, selling and/or offering to sale, in the United States and elsewhere, infringing corbels that embody the inventions claimed in the ‘853 Patent, in violation of 35 U.S.C. § 271.

147. By virtue of at least its manufacture, use, sale and offer for sale of infringing corbels, Fosbel has been and still is directly infringing on the ‘853 Patent under

35 U.S.C. § 271, either literally or under the doctrine of equivalents, including without limitation claims 1 and 10. A claim chart of representative claims is attached hereto as **Exhibit D**.

148. Upon information and belief, the Stelco oven, created by Fosbel, practices every element of Claims 1-3, 5-7, 9-15, and 17 of the '853 Patent. See Exhibit D.

149. Upon information and belief, Fosbel made the Stelco coke oven in the United States and thus, Fosbel literally infringed Claims 1-3, 5-7, 9-15, and 17 of the '853 Patent. See Exhibit C.

150. Even if a court were to find that Fosbel did not literally infringe on Claims 1-3, 5-7, 9-15, and 17 of the '853 Patent, Fosbel is still liable under the Doctrine of Equivalents.

151. Under the Doctrine of Equivalents, an accused product, though falling outside the scope of the claims of a patent, may yet be found to infringe the patent if the differences between the accused product and each element of the claimed invention are so insubstantial that the accused product may fairly be characterized as appropriating the invention.

152. One way of determining whether the differences are insubstantial is to see whether the accused product performs substantially the same function, in substantially the same way, to achieve substantially the same result.

153. If an accused device is missing an element which is described as being an element of a claim but has a comparable element then the accused device necessarily infringe under the Doctrine of Equivalents.

154. Fosbel's actions in infringing the '853 Patent have been, and continue to be, willful, deliberate, and/or in conscious disregard of the rights of Vanocur and as a result, Vanocur has sustained damages in an amount to be proven at trial, including but not limited to costs, pre-judgment and post-judgment interest, and reasonable attorney fees and enhanced damages under 35 U.S.C. § 285.

**WHEREFORE**, plaintiff prays for relief and demands judgment against defendants as follows:

- (1) for a judgment declaring that defendant have infringed one or more claims of the '853 Patent;
- (2) for a preliminary and permanent injunction restraining defendant, its officers, agents, servants, employees, attorneys, subsidiaries, affiliates, and all other persons in active concert or participating with defendant or with any of the foregoing from making, using, selling, offering for sale, importing, and/or exporting any systems or products that infringe one or more claims of the '853 Patent, or otherwise directly or indirectly committing further acts of infringement;
- (3) adjudging that the '853 Patent is valid and enforceable;
- (4) ordering an accounting for damages arising from defendant's acts of infringement including pre-judgment and post-judgment interest and costs;
- (5) awarding damages, including treble damages, under 35 U.S.C §§ 284 and 285, with interest;
- (6) finding that defendant's infringement is/was willful, that this is an exceptional case, and awarding reasonable attorneys' fees to plaintiff under 35 U.S.C. § 285; and

(7) awarding such further relief as this Court deems just and proper.

Dated: September 7, 2023  
Buffalo, New York

**RUPP PFALZGRAF LLC**  
*Lead Counsel & Attorneys for Plaintiff*  
Vanocur Refractories, LLC

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